

APPENDIX A

11. An inductance element prepared in accordance with the steps of:

providing a substrate;

forming at least one coil having an external side on said substrate;

providing a conductive material and connecting the external side of said at least one coil with the conductive material to thereby function as a plating electrode; and,

forming a multilevel multiple-layered magnetic structure of a soft magnetic material on said at least one coil by a plating process;

and wherein the plating process includes the step of forming a layer of the soft magnetic material on said at least one coil, stopping the plating process until an oxidized membrane is formed on the exposed plating, restarting the plating process after the formation of the oxidized membrane and depositing a second plating layer on said first layer and repeating the formation of an oxidized layer and plating steps until the desired thickness and layers of plating are obtained.

12. An inductance element according to claim 11 in which said plating process is interrupted whenever a layer of plating of approximately 2 mm is accomplished.

13. An inductance element according to claim 11 wherein said at least one coil is a wound enameled wire coil, a planar coil or a coil formed on a printed circuit board.

14. An inductance element according to claim 11 wherein said conductive material is metalized such that said multiple-layered magnetic structure may be developed on said at least one coil.

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15. An inductance element according to claim 11 wherein said soft magnetic material comprises a 21% Permalloy alloy or a super Permalloy.--

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